AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application. Please add new claims 39-43 as follows:

1-24. (Cancelled)

25. (Original) A method of measuring glucose in a blood sample, said method comprising:

providing a test strip, said test strip having a sample chamber, with a working electrode, a counter electrode, a pair of fill-detect electrodes, and a reagent layer disposed in said sample chamber, said reagent layer including glucose oxidase and a mediator, said test strip including an auto-on conductor;

inserting said test strip into a meter, said meter being in a sleep mode; said meter detecting an auto-on current through said auto-on conductor and responsively entering an active mode;

said meter validating said working and counter electrodes by applying a first validation voltage between said working and counter electrodes;

said meter validating said fill-detect electrodes by applying a second validation voltage between said fill-detect electrodes, while said first validation voltage is applied between said working and counter electrodes;

applying said blood sample to said sample chamber;

said meter detecting said blood sample at a first location in said sample chamber by applying a drop-detect voltage between said working and counter electrodes and measuring a drop-detect current flowing between said working and counter electrodes;

said meter detecting said blood sample at a second location in said sample chamber by applying a fill-detect voltage between said fill-detect electrodes and measuring a fill-detect current flowing between said fill-detect electrodes;

after waiting an incubation time period, said meter applying an assay voltage between said working and counter electrodes and making at least one measurement of the resulting current through said working electrode; and

said meter determining a measured glucose level from said at least one current measurement.

26.   (Original) The method of claim 25, further comprising:

said auto-on current developing an auto-on voltage drop across said auto-on conductor; and

said meter measuring said auto-on voltage drop.

27.   (Original) The method of claim 25, further comprising:

said meter measuring any leakage current through said working electrode, while applying said first validation voltage between said working and counter electrodes; and

if said leakage current exceeds a first predetermined level, said meter indicating an error condition.

28.   (Original) The method of claim 25, further comprising:

said meter measuring any leakage current through one of said fill-detect electrodes, while applying said first validation voltage between said working and counter electrodes and said second validation voltage between said fill-detect electrodes; and

if said leakage current exceeds a second predetermined level, said meter indicating an error condition.

29.   (Original) The method of claim 25, further comprising:

if said drop-detect current does not reach a drop-detect threshold value within a predetermined time period, said meter indicating an error condition.

30.   (Original) The method of claim 25, further comprising:

if said drop-detect current reaches a drop-detect threshold value within a predetermined time period, said meter:

a) switching said working and counter electrodes to a high impedance state relative to said fill-detect electrodes;

b) starting a fill time period; and

c) starting said incubation time period.

31.   (Original) The method of claim 30, further comprising:

if said fill-detect current does not reach a fill-detect threshold value within said fill time period, said meter indicating an error condition.

32.   (Original) The method of claim 30, further comprising:

if said fill-detect current reaches a fill-detect threshold value within said fill time period, said meter providing a user-discernible indication.

33.   (Original) A method of using a test strip to test a blood sample, said test strip including a sample chamber, a working electrode, a counter electrode, a pair of fill-detect electrodes, and an auto-on conductor, said method comprising:

inserting said test strip into a meter, said meter being in a sleep mode;

said meter detecting an auto-on current through said auto-on conductor and responsively entering an active mode;

applying said blood sample to said sample chamber;

said meter detecting said blood sample in said sample chamber by applying a fill-detect voltage between said fill-detect electrodes and measuring a fill-detect current flowing between said fill-detect electrodes;

said meter applying an assay voltage between said working and counter electrodes and making at least one measurement of the resulting current; and

said meter determining a test result from said at least one current measurement.

34.   (Original) The method of claim 33, further comprising:

said auto-on current developing an auto-on voltage drop across said auto-on conductor; and

said meter measuring said auto-on voltage drop.

35.   (Original) The method of claim 33, further comprising:

if said fill-detect current reaches a fill-detect threshold value within a predetermined time period, said meter providing a user-discernible indication.

36.   (Original) The method of claim 33, further comprising:

said meter detecting said blood sample in said sample chamber by applying a

drop-detect voltage between said working and counter electrodes and measuring a

drop-detect current flowing between said working and counter electrodes.

37.   (Original) The method of claim 36, further comprising:

if said drop-detect current reaches a drop-detect threshold value within a

predetermined time period, said meter starting an incubation time period.

38.   (Original) The method of claim 37, wherein said meter applies said assay

voltage after said incubation time period.

39.   (New) The method of claim 33, further comprising:

said meter validating said working and counter electrodes by applying a first

validation voltage between said working and counter electrodes.

40.   (New) The method of claim 39, further comprising:

said meter validating said fill-detect electrodes by applying a second validation

voltage between said fill-detect electrodes, while said first validation voltage is applied

between said working and counter electrodes.

41.   (New) The method of claim 33, wherein:

said auto-on conductor is electrically isolated from said electrodes.

42.   (New) The method of claim 33, wherein:

said test strip comprises a base layer, and said electrodes and said auto-on

conductor comprise electrically conducting material disposed on said base layer.

43.   (New) The method of claim 33, wherein:

said auto-on conductor is disposed on said test strip prior to said sample being

applied.